

RECEIVED
CENTRAL FAX CENTER

MAR 25 2009

In the claims:

1. (Original) A conformable skin element system comprising one or more conformable skin elements, each skin element forming a pressure transducer and flow modifier, a controller, connections for coupling the conformable skin elements and the controller, a feedback control loop for generating and transmitting signals between the skin elements, the controller and the connections for conforming the skin elements to desired deformations.
2. (Original) The system of claim 1, wherein the controller is a micro-controller.
3. (Original) The system of claim 2, wherein the micro-controller comprises programmable computer chips for sensing and processing the signals from the feedback and for selectively activating the skin elements to desired deformations.
4. (Original) The system of claim 2, wherein the connections are electrical connections.
5. (Original) The system of claim 4, further comprising a power supply connected to the micro-controller.
6. (Original) The system of claim 1, wherein the skin elements are pressure-transducers and wherein the signals are pressure-transducer signals provided to the feedback loop.
7. (Original) The system of claim 6, wherein the feedback loop comprises amplifiers for amplifying the signals and filters for filtering the signals transmitted to the micro-controller.
- 8-14. (Cancelled)
15. (Original) The system of claim 1, wherein the skin elements are shaped elements.
16. (Cancelled)
17. The system of claim 15, wherein the shaped elements have a configuration of at least two sides.

18. (Original) The system of claim 17, wherein the shaped elements have a configuration of more than two sides.
19. (Original) The system of claim 1, further comprising a surface, wherein the skin elements are mounted on the surface.
20. (Original) The system of claim 19, wherein the surface is on a vehicle.
21. (Original) The system of claim 20, wherein the surface is on an aerodynamic part of the vehicle.
22. (Original) The system of claim 21, wherein each skin element has a vehicle conformable shape from a mounting perimeter after activation.
23. (Original) The system of claim 22, wherein the conformable shape corresponds to a mounting pattern of the skin elements on the surface.
24. (Original) The system of claim 1, wherein the system is an active vortex controller.
25. (Original) The system of claim 1, wherein the skin elements comprise actuatable material.
26. (Original) The system of claim 25, wherein the material is piezoelectric material.
27. (Original) The system of claim 26, wherein the piezoelectric material is selected from a group consisting of piezo-ceramic, piezo-ceramic with metal shim, piezoelectric bimorph, piezo-film, and combinations thereof.
28. (Original) The system of claim 25, wherein the actuatable material is selected from a group consisting of electrical, mechanical, electromechanical, electromagnetic, electrothermal actuatable material and combinations thereof.
29. (Original) The system of claim 25, wherein the material is selected from a group consisting of shape-changing materials sensitive to temperature, light, pneumatic, hydraulic, magnetic effects and combinations thereof.

30. (Original) The system of claim 25, wherein the material is selected from a group consisting of shape memory alloys, magnetic elements and combinations thereof.

31-47. (Cancelled)